

REMARKS

In the March 26, 2010 Office Action, claims 1-4, 8, 9 and 13-19 stand rejected in view of prior art. Claims 1-4 and 13-19 also were objected to for including informalities. No other objections or rejections were made in the Office Action.

Status of Claims and Amendments

In response to the March 26, 2010 Office Action, Applicant has amended the claims 1, 8, 13 and 19, as indicated above. Thus, claims 1-4, 8, 9 and 13-19 are pending, with claims 1 and 8 being the only independent claims. Reexamination and reconsideration of the pending claims are respectfully requested in view of above amendments and the following comments.

Entry of November 5, 2009 Amendment

Paragraph 1 at the top of page 2 of the Office Action, the Office Action indicates that Applicant's November 5, 2009 Amendment and November 25, 2009 Request for Continued Examination have been entered.

Claim Objections

In paragraph 2 of the Office Action, claims 1-4 and 13-19 were objected to due to typographical errors. Accordingly, Applicant has amended claims 1, 13 and 19 to correct these typographical errors. Claim 8 also included a typographical error which has now been corrected.

Rejections - 35 U.S.C. § 103

In paragraph 3 of the Office Action, claims 1-4, 8, 9 and 13-19¹ stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,895,009 (the Stallkamp patent) in view of U.S. Patent Publication No. 2003/0114679 (the Domon publication). In response, Applicant respectfully asserts that the rejection is improper because the Office Action fails to establish a *prima facie* case of obviousness.

Specifically, both the Stallkamp patent and the Domon publication fail to disclose or suggest a device with **a *synchronization adjustment unit*** for synchronizing a frequency of the cycle start packet output from the cycle master with a frequency of the external reference signal received by the external synchronizing signal receiver, by carrying out ***feedback control*** of a clock source frequency of the cycle master ***using the external reference signal*** as recited in both independent claims 1 and 8.

First, MPEP 2141.02 section VI requires that “a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.” *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). By the above rejection, the Office Action clearly fails to consider each of the Stallkamp patent and the Domon publication in its entirety.

Specifically, the Office Action ignores the teaching at column 6, lines 12-15 of the Stallkamp patent that states that “locking logic 306 ***locks*** clock output 309 to the operating frequency of isochronous signal line 357 resulting in a locked cycle time 312”. This teaching is completely different from “a synchronization adjustment unit for synchronizing a frequency of the cycle start packet output from the cycle master with a frequency of the

¹ On page 3, paragraph 4 of the Office Action, claims 1-4, 8, 9, 11 and 12 are indicated as being rejected. However, claims 11 and 12 were previously cancelled, and on pages 7 thru 11, claims 13-19 are indicated as being rejected.

external reference signal received by the external synchronizing signal receiver” as recited in independent claims 1 and 8. The teachings of the Stallkamp patent further negate the necessity of “carrying out *feedback control* of a clock source frequency of the cycle master *using the external reference signal*” as recited in both independent claims 1 and 8.

Moreover, the Office Action fails to point out corresponding disclosure in either of the Stallkamp patent and the Domon publications related to the recitation in claims 1 and 8 of

the second node being having a data conversion unit configured to synchronize second data generated by conversion of the first data in the second node with an external reference signal, the second node to output the second data.

Instead, the Stallkamp patent discloses only a single synchronizer 254 at only one node (see Column 5, lines 9-18 of the Stallkamp patent).

Beginning at the bottom of page 4 of the Office Action, the Office Action erroneously cites the Domon publication for its disclosure of a first node that is configured

to transmit first data . . . to a second node at a transfer rate synchronized with a cycle start packet output from the cycle master.

Rather, the Domon publication specifically teaches that

When receiving master time information, each time slave node updates its own time information using the master time information at an update-possible time point just after the master time information has been received. (See Abstract of the Domon publication)

As per MPEP 2141.02 (cited above), this teaches away from the claimed invention.

Specifically, the Domon publication teaches *slaving* each node to the master time information, which completely contradicts the combination of features recited in claims 1 and 8, which require “carrying out *feedback control* of a clock source frequency of the cycle master *using the external reference signal*” (see independent claims 1 and 8). The act of slaving devices together contrasts sharply with providing feedback between differing devices. Slaving and providing feedback to control timing are completely different concepts and

configuration that are not interchangeable. In the slaving teachings of the Domon publication, each slaved device acts independently to slave timing to the master time information. There is no feedback and no true synchronization between nodes. Rather, one node slaves to the master node.

It would NOT have been obvious to one ordinary skill in the art, having the teachings of the Stallkamp patent and the Domon publication, to enhance the communication and conversion methods of the Domon publication with the synchronization with the house reference signal of the Stallkamp patent when both the Stallkamp patent and the Domon publication teach away from the claimed invention, as discussed above.

Under U.S. patent law, the mere fact that the prior art can be modified does *not* make the modification obvious, unless an *apparent reason* exists based on evidence in the record or scientific reasoning for one of ordinary skill in the art to make the modification. See, KSR Int'l Co. v. Teleflex Inc., 127 S.Ct. 1727, 1741 (2007). The KSR Court noted that obviousness cannot be proven merely by showing that the elements of a claimed device were known in the prior art; it must be shown that those of ordinary skill in the art would have had some "apparent reason to combine the known elements in the fashion claimed." Id. at 1741. The current record lacks any apparent reason, suggestion or expectation of success for combining the patents to create Applicants' unique arrangement of a data conversion system.

More specifically, if the Stallkamp patent and/or the Domon publication were somehow modified to meet the claims of the present invention, it would require a complete reconstruction of the logic and controls of the Stallkamp patent and/or the Domon publication, contradicting the teachings of each reference, which would destroy the teaching of the Stallkamp patent and the Domon publication. More specifically, were one to take the slaving of devices taught by the Domon publication and insert such slaved devices into the Stallkamp patent, it would be impossible for the Stallkamp patent to be modified to meet the

invention as recited in claims 1 and 8 without contradicting the teachings of the Stallkamp patent and the Domon publication.

Moreover, Applicant believes that dependent claims 2-4, 9 and 13-19 are also allowable over the prior art of record in that they depend from independent claims 1 and 8, and therefore are allowable for the reasons stated above. Also, the dependent claims 2-4, 9 and 13-19 are further allowable because they include additional limitations. Thus, Applicant believes that since the prior art of record does not disclose or suggest the invention as set forth in independent claims 1 and 8, the prior art of record also fails to disclose or suggest the inventions as set forth in the dependent claims.

Therefore, Applicant respectfully requests that this rejection be withdrawn in view of the above comments and amendments.

Prior Art Citation

In the Office Action, additional prior art references were made of record. Applicant believes that these references do not render the claimed invention obvious.

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In view of the foregoing amendment and comments, Applicant respectfully asserts that claims 1-4, 8, 9 and 13-19 are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested.

Respectfully submitted,

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